

浙江木犀科一新种：浙南木犀¹

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摘要: 该文描述了采自浙江南部的木犀属 *Osmanthus* Lour. 一新种——浙南木犀 *O. austrozhejiangensis* Z.H. Chen, W.Y. Xie et X. Liu, 并附有线描图和彩色照片。该种在具聚伞花序, 叶柄、小枝、苞片、花梗被柔毛等性状上接近于毛柄木犀 *O. pubipedicellatus* Chia ex H. T. Chang, 不同之处在于叶片倒卵形、倒卵状椭圆形或椭圆形, 长

(5.5~) 8~10 (~13) cm, 宽 (2.2~) 3~4.5 (~5) cm, 先端急尖或短渐尖, 叶缘具尖锐细锯齿或全缘, 侧脉8~10对, 花较大, 花冠管长 2.2~2.3mm, 裂片长 2.2~3.0mm, 花丝长 1.3~1.5mm, 花药长约 1.2mm。本种的发现, 对研究东亚木犀属自西南向东北方向迁移与演化提供了新的材料。

关键词: 浙南木犀, 木犀属, 木犀科, 新种, 浙江

中图分类号: Q949.776.2

文献标识码: A 文章编号:



开放科学 (资源服务) 标识码 (OSID):

Osmanthus austrozhejiangensis (Oleaceae), a new species from Austro-Zhejiang

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Abstract: *Osmanthus austrozhejiangensis* Z.H. Chen, W.Y. Xie et X. Liu, a new species of *Osmanthus* Lour. from Austro-Zhejiang, is described with illustrations. and color photographs. This new species is similar to *O. pubipedicellatus* Chia ex H.T. Chang by having cyme and puberulent on petiole, bract, pedicel., but differs from the former in having leaf blade obovate, obovate-elliptic or elliptic, (5.5~) 8~10 (~13) cm long, (2.2~) 3 ~4.5 (~5) cm wide, apex acute or shortly acuminate, margin acutely serrate or entire, lateral veins 8~10 pairs; flowers larger, corolla tube 2.2~2.3 mm, lobes 2.2~3.0mm; filaments 1.3~1.5 mm, anthers ca. 1.2mm. The discovery of

收稿日期: 2019-7-31

基金项目: 浙江省第二次重点保护野生植物资源调查专项项目 (335006-2013-0001); 浙江省野生植物资源调查、建档、编撰及《浙江植物志》(第二版)编著专项项目 (335010-2015-0005) [Supported by the Zhejiang Provincial Program of the Second Investigation Project of Key Protected Wild Plant Resources (335006-2013-0001), and the Survey, File and Codification of Wild Plants and the Second Edition of Flora of Zhejiang (335010-2015-0005)]

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this species provides new materials for studying the migration and evolution of *Osmanthus* from southwest to northeast in East Asia.

Key words: *Osmanthus austrozhejiangensis*, *Osmanthus* Lour., Oleaceae, new species, Zhejiang

木犀属 *Osmanthus* Lour. 是典型的东亚-北美间断分布属, 主要分布于亚洲热带和亚热带地区, 从喜马拉雅至日本, 向南分布至马来半岛与苏门答腊, 少数种类产于美洲东南部以及墨西哥少数地方 (Green, 1958; Ji, 2004)。本属全世界约 30 种, 我国约有 25 种, 主产于南部和西南地区 (陆瑞林, 1992), 浙江有 8 种 (郑朝宗, 2005)。本属植物为常绿灌木或乔木, 花都具有芳香味, 是重要的蜜源植物, 其中木犀 (桂花) *O. fragrans* Lour. 即为我国著名的香料植物和园林观赏植物。

近年来, 笔者在浙江省野生植物资源调查和《浙江植物志》(新编) 编撰过程中, 发现了浙江南部地区 1 种木犀属植物, 经查对文献 (Ohwi, 1965; Chang, 1982; Zhang et al., 1996; Yang & Lu, 1998; Xiang & Ji, 2004)、标本和定点观察比较研究, 确认为新种, 现予以报道。

浙南木犀 新种 图 1, 2

Osmanthus austrozhejiangensis Z.H. Chen, W.Y. Xie et X. Liu, sp. nov. Figs.1, 2

This new species is similar to *O. pubipedicellatus* Chia ex H.T. Chang, but differs from the former in having leaf blade obovate, obovate-elliptic or elliptic, (5.5~) 8~10 (~13) × (2.2~) 3~4.5 (~5) cm (instaed of leaf blade narrowly elliptic, rarely lanceolate, 6.5~9 × 2~3 cm), apex acute or shortly acuminate, margin acutely serrate or entire (instaed of apex long acuminate, margin entire), lateral veins 8~10 pairs (instaed of 6 or 7 pairs); flowers larger, corolla tube 2.2~2.3 mm, lobes 2.2~3.0 mm (instaed of corolla tube ca. 1 mm, lobes ca. 1.5 mm); filaments 1.3~1.5 mm, anthers ca. 1.2 mm (instaed of filaments ca. 0.5 mm, anthers ca. 1 mm).

Type: China, Zhejiang (浙江), Jingning (景宁), Wangdongyang (望东垟), on slope at forest margin, alt.1000 m, 30 Sep. 2018, X.D. Mei (梅旭东) et S.Z. Hu (胡绍柱) JN18093002 (holotype: ZM; isotype: ZM, IBK).

常绿小乔木或灌木, 高 3~5 m。小枝灰色, 被开展短柔毛; 老枝无毛。叶片厚革质, 倒卵状椭圆形、倒卵形或椭圆形, 稀卵形, 长 (5.5~) 8~10 (~13) cm, 宽 (2.2~) 3~4.5 (~5) cm, 先端急尖或短渐尖, 基部楔形, 稀宽楔形, 边缘稍背卷, 中部以上具尖锐细锯齿或全缘 (萌生枝之叶具刺尖齿), 两面无毛, 上面深绿色, 光亮, 有稀疏针孔状凹点, 中脉在上面凹陷, 在下面明显凸起, 侧脉 8~10 对, 在上面微凹或平, 干后明显突起, 在下面清晰, 干后几不突起; 叶柄长 1~1.5 (~2) cm, 萌生枝之叶柄长可达 2.5 cm, 被微柔毛, 上面凹陷处尤密, 后几脱净。聚伞花序簇生叶腋, 每腋内有花芽 1 (或 2) 枚, 每芽有花 (2 或) 3~5 朵; 苞片 2, 革质, 外面密被柔毛, 基部合生呈舟状, 筒部长约 1 mm, 裂片卵形, 长约 2.2 mm, 先端锐尖; 花梗长 4~9 mm, 俯垂, 白色, 花后连同花萼、子房均变紫色, 被微柔毛; 花芳香; 花萼长约 1~1.1 mm, 裂片 4, 三角形, 长约 1.2 mm; 花冠白色, 花冠管长 2.2~2.3 mm, 裂片长 2.2~3.0 mm, 宽约 2~2.1 mm, 先端圆钝; 雄蕊着生于花冠管基部, 花丝长 1.3~1.5 mm, 中部以下与花冠合生, 花药长约 1.2 mm, 药隔延长呈明显的三角形小尖头; 雌蕊长约 2.0 mm, 花柱长约 1 mm, 柱头头状。核果椭圆球形, 稍歪斜, 长 1.3~1.5 cm, 直径约 8 mm, 两端钝, 熟时暗紫色, 果核长 0.8~1.2 cm, 宽 0.4~0.7 cm, 表面具 10~14 条肋纹。花期 9 月中旬至 10 月上旬, 果期翌年 4 月下旬至 5 月上旬。

Paratypes: China, Zhejiang (浙江), Jingning (景宁), Wangdongyang (望东垟), on slope at forest margin, alt.1000 m, 17 Dec. 2018, Z.H. Chen (陈征海), S.Z. Hu (胡绍柱) et R.L. Liu (刘日林) JN181217001 (IBK, ZM), JN181217002 (ZM); the same locality and date, under forest, alt.950 m, Z.H. Chen (陈征海) et R.L. Liu (刘日林) JN181217003 (ZM); Shangbiao (上标), under

forest, alt.1100 m, 5 Sep. 2018, S.Z. Hu (胡绍柱) JN180905004, JN180905006 (ZM); the same locality, 14 Mar. 2019, Z.H. Chen et al. (陈征海等) JN19031401 (ZM); the same locality, 11 May 2019, X.D. Mei (梅旭东) et J. Lin (林坚) JN01, JN02, JN03 (ZM); Yujikeng (渔漈坑), on slope at forest margin, alt.950 m, 1 Aug. 2017, Z.H. Chen et al. (陈征海等) JN170801-08(a) (ZM); Dayanhu (大仰湖), Donggangqiaotou (东港桥头), at forest margin, alt.1000 m, Z.H. Chen et al. (陈征海等) JN19031305 (ZM). Suichan (遂昌), Zhedaikou (柘岱口), Zuobieyuancun (左别源村), Daxikeng (大西坑), Taoshuba (桃树坝), 13 Aug. 1985, M. X. Wu (吴鸣翔) et F. G. Zhang (张方钢) 4382 (ZM). Taishun(泰顺), Wuyanling (乌岩岭), in evergreen broad-leaved trees, 30 Nov 1958, alt. 1200m, *Anonymous* 23989 (HHBG); at forest margin, 22 Jun. 2018, alt.950 m, Z.H. Chen (陈征海) et X. Liu (刘西) TS18062209 (ZM).

浙南木犀的小枝、苞片、花梗被短柔毛, 花冠裂片略长于花冠管等特征, 与毛柄木犀 *O. pubipedicellatus* Chia ex H.T. Chang 相近, 而与省内广泛栽培的木犀 *O. fragrans* Lour. 极易区分。三者在形态上的主要区别见表 1。

木犀属植物可能起源于晚第三纪的中国华南、西南至马来西亚一带 (Ji, 2004), 在云南的晚第三纪已有孢粉记录 (Li & Wu, 1978), 随着地质历史变迁, 一部分种类向低纬度高海拔退却, 另一部分则向较高纬度地区延伸, 逐渐适应了亚热带气候的生长环境 (Zang et al., 2004)。浙南木犀与产自华南的毛柄木犀近缘, 正是木犀属自西南向东北方向迁移过程中在华东地区进一步演化的结果, 同时也与王文采院士 (1992, 1992a) 提出的东亚被子植物的迁移路线相吻合。

表 1 浙南木犀、毛柄木犀和木犀的形态比较

Tab.1 Comparison of *O. austrozhejiangensis*, *O. pubipedicellatus* and *O. fragrans*

性状 Character	浙南木犀 <i>O. austrozhejiangensis</i>	毛柄木犀 <i>O. pubipedicellatus</i>	木犀 <i>O. fragrans</i>
小枝 Branchlet	灰色, 被开展柔毛 Gray, pubescent	灰黄色, 被柔毛 Grey yellow, puberulent	黄白色; 无毛 Yellowish-white, glabrous
叶片 Blade	厚革质, 倒卵形、倒卵状椭圆形或椭圆形, 叶面平滑, 有稀疏针孔状凹点 Thick leathery, obovate, obovate-elliptic or elliptic, smooth adaxially, sparse needle-shaped concaves	厚革质, 狹椭圆形, 叶面平滑, 有稀疏针孔状凹点 Thick leathery, narrowly elliptic, smooth adaxially, sparse needle-shaped concaves	革质, 椭圆形至椭圆状披针形, 叶面皱褶, 两面腺点连成水泡状凸起 Leathery, elliptic to elliptic-lanceolate, wrinkled adaxially, needle-shaped concaves connected into blister-like protuberance on both sides
叶 Leaf	中上部具尖锐细锯齿或全缘 Upper part usually acutely serrulate or entire	全缘 Entire	全缘或上半部具细齿 Entire or usually serrulate upper half
叶尖 Apex	急尖或短渐尖 Acute or shortly acuminate	长渐尖 Long acuminate	急尖或渐尖 Acute or acuminate
叶柄 Petiole	被微柔毛 Puberulent	被微柔毛 Puberulent	无毛 Glabrous
花序 Inflorescence	外面密被柔毛 Dense puberulent outside	外被柔毛 Puberulent outside	无毛 Glabrous
花 Flower	花梗 Pedicel	被微柔毛 Puberulent	无毛 Glabrous
	花冠 Corolla	裂片长 2.2~3.0 mm, 花冠管长 2.2~2.3 mm Lobes 2.2~3.0 mm, tube	裂片约 1.5 mm, 花冠管长约 1 mm Lobes ca. 1.5 mm, tube
			裂片长 2~3 mm, 花冠管长 0.5~1 mm Lobes 2~3 mm, tube 0.5~1 mm

性状 Character	浙南木犀 <i>O. austrozhejiangensis</i>	毛柄木犀 <i>O. pubipedicellatus</i>	木犀 <i>O. fragrans</i>
	2.2~2.3 mm	ca. 1 mm	
雄蕊 Stamens	着生于花冠管基部 Attaching to base of corolla tube	着生于花冠管基部 Attaching to base of corolla tube	着生在花冠管中部 Attaching to middle of corolla tube
花丝 Filament	长 1.3~1.5 mm 1.3~1.5 mm in length	长约 0.5 mm Ca. 0.5 mm in length	长约 0.5 mm Ca. 0.5 mm in length
花药 Anther	药隔延长呈明显的三角形小尖头 Connective elongated into an obvious deltate mucro	药隔延长呈明显的三角形小尖头 Connective elongated into an abvious deltate mucro	药隔延伸呈不明显的小尖头 Connective elongated into an obscure mucro
核果 Drupe	果核表面具 10~14 条肋纹 Nucleus with 10~14 ribs	——	果核表面具 7~9 条纵肋 Nucleus with 7~9 ribs

注: “——”表示无数据 Note: “——” means no data.

致谢:

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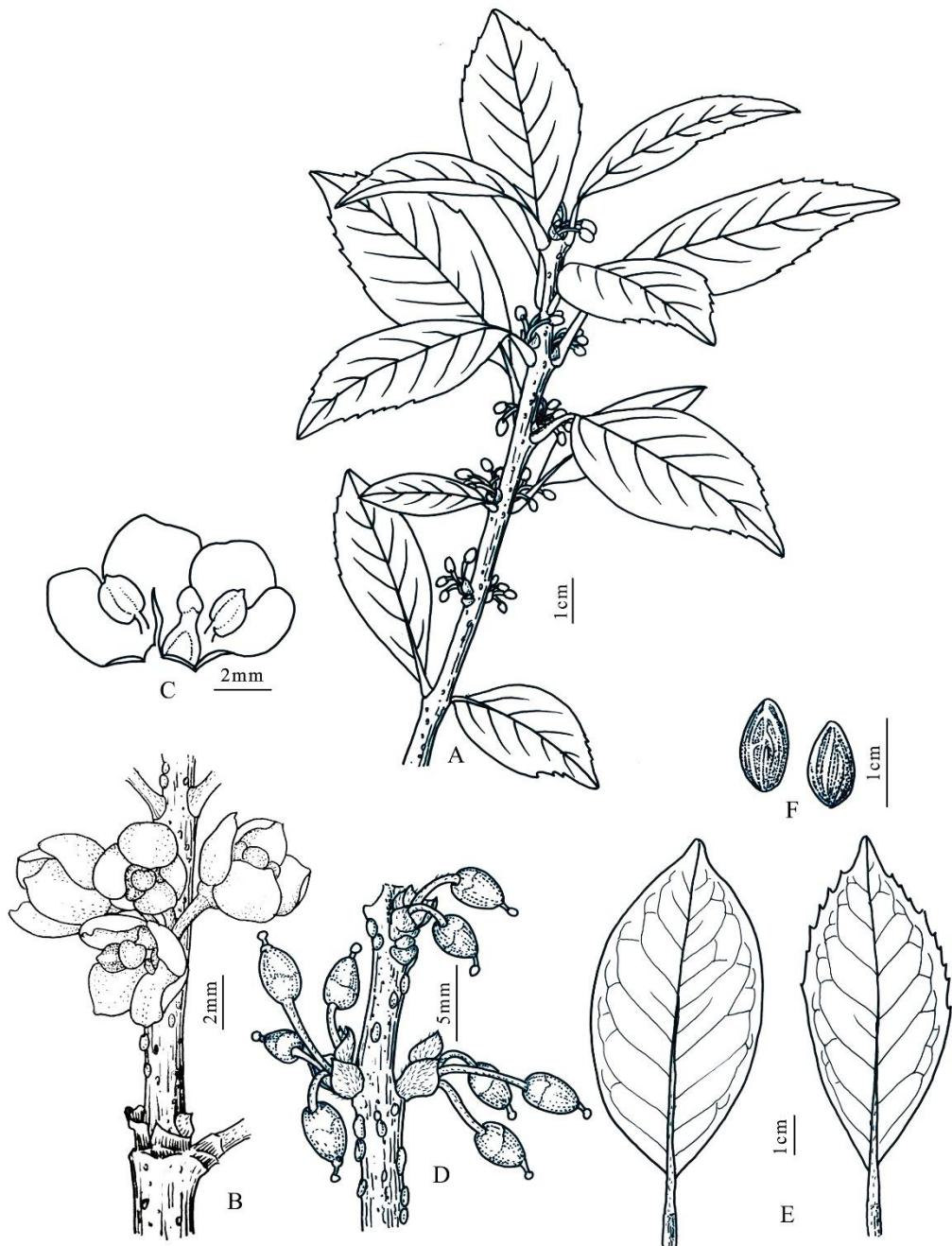
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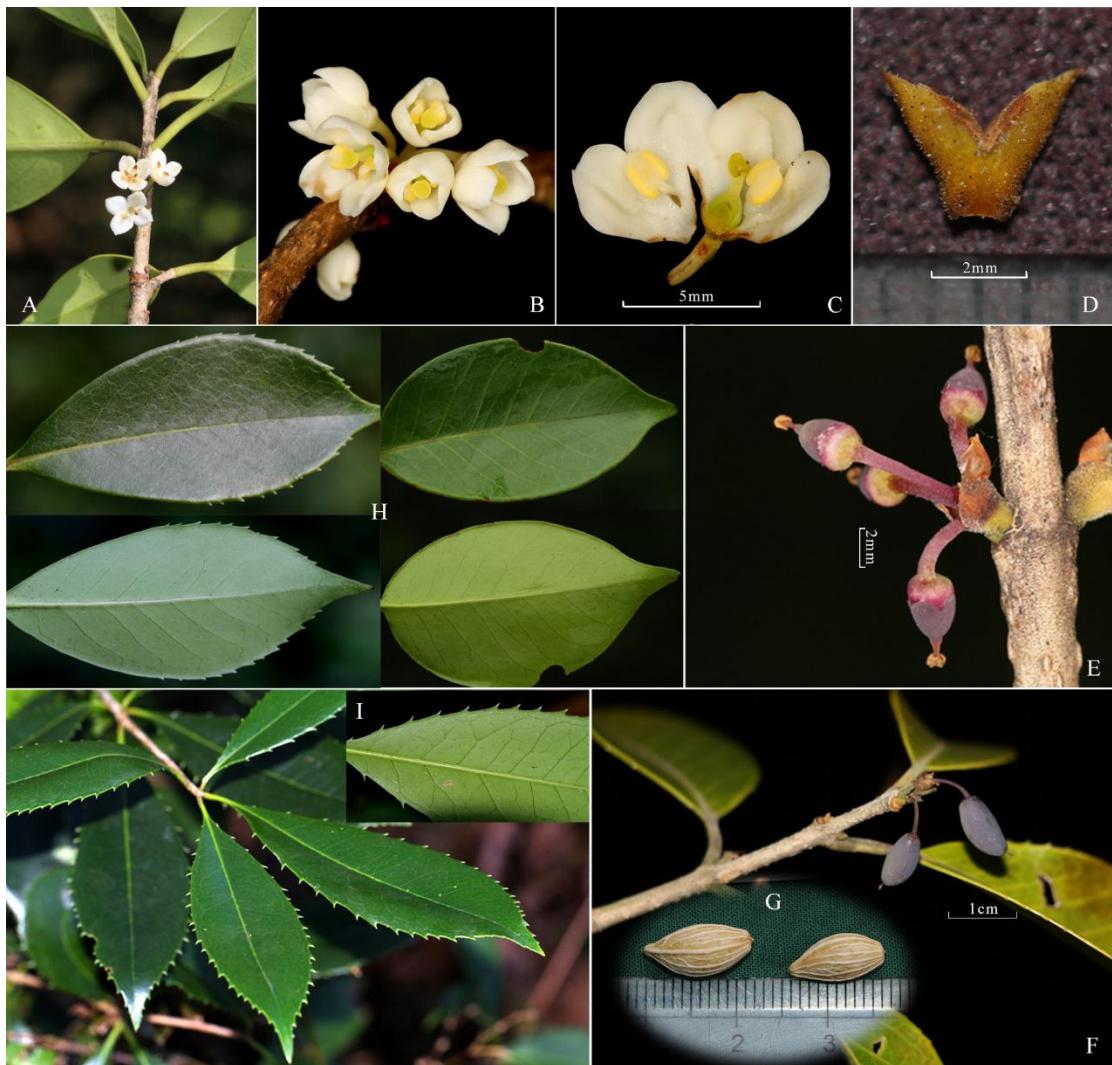


A. 花枝; B. 花序; C. 花 (花冠展开); D. 幼果枝; E. 叶片; F. 果核.

A. Flowering branch; B. Inflorescence; C. Unfolded corolla; D. Shoot with young fruit; E. Leaf blade; F. Endocarp

图 1 浙南木犀

Fig.1 *Osmanthus austrozhejiangensis*



A. 花枝; B. 花序; C. 花冠、子房与雄蕊; D. 苞片; E. 幼果枝; F. 核果; G. 果核; H. 繁殖枝之叶片; I. 萌芽枝之叶片.

A. Flowering branch; B. Inflorescence; C. Corolla、Ovary and Stamen; D. Involucral bract; E. Branch with young fruit;
F.Drupe; G. Endocarp; H. Leaves of bearing branch; I. Leaves of sprouting branch

图 2 浙南木犀

Fig.2 *Osmanthus austrozhejiangensis*